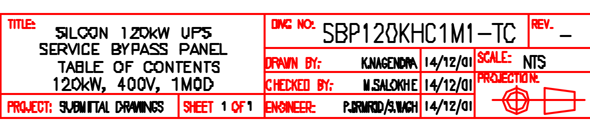
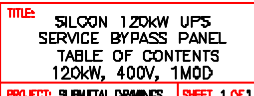
PAGE	DRAWING NO.	SUBJECT	REVISION								
			1	2	3	4	5	6	7	8	9
1	SBP120KHC1M1-TC	TABLE OF CONTENTS									
2	SBP120KHC1M1-SP	SPECIFICATION SHEET									
3	SBP120KHC1M1-MM 1/2	GENERAL ARRANGEMENT									
4	SBP120KHC1M1-MM 2/2	MAIN MECHANICAL									
5	SBP120KHC1M1-ME	ELECTRO MECHANICAL									
6	SBP120KHC1M1-ES 1/6	POWER CIRCUIT									
7	SBP120KHC1M1-ES 2/6	CONTROL CIRCUIT- 1									
8	SBP120KHC1M1-ES 3/6	CONTROL CIRCUIT- 2									
9	SBP120KHC1M1-ES 4/6	CONTROL CIRCUIT- 3									
10	SBP120KHC1M1-ES 5/6	CONTROL CIRCUIT- 4									
11	SBP120KHC1M1-ES 6/6	CONTROL CIRCUIT- 5									
12	SBP120KHC1M1-BM	BILL OF MATERIAL									





TITLE: SILCON 120kW UPS SERVICE BYPASS PANEL TABLE OF CONTENTS 120kW, 400V, 1MOD	DWG NO: SBP120KHC1M1-TC		REV. –
	DRAWN BY: K.NAGENDRA	14/12/01	SCALE: NTS
	CHECKED BY: M.SALOKHE	14/12/01	PROJECTION:
PROJECT: SUBMITTAL DRAWINGS — SHEET 1 OF 1	ENGINEER: P.SRMRD/S.WAGH	14/12/01	



SERVICE BY-PASS PANEL SPECIFICATION

1. SYSTEM MAINS SUPPLY RATING

Mains voltage :	3x400V/230V at 50Hz
Control Voltage :	230V at 50Hz
Short-circuit current Ic :	[ ] 15 kA [ ] 25 kA [x] 30 kA [ ] 45 kA

2. SYSTEM EARTHING

The system earthing is TN-S with 5 wires at both inlets and outlets

3. STANDARDS

The Service By-pass Panel is built according to : IEC 439-1

4. ENVIRONMENTS

The assembly is made for an ambient temperature of : [ ] Max: +40°C and [ ] Min : -5°C

5. ENCLOSURE

The enclosure of the assembly is : [x] IP43D and Form 2

The assembly material is :
- [x] Steel with Surface coating
- [ ] Plastic without Surface coating

6. POSITIONING

The assembly is made for indoor installation on : [ ] Floor [x] Wall

7. DIMENSIONS AND WEIGHTS

Height :	960 mm
Width :	750 mm
Depth :	235 mm
Weight :	50 kg

8. CABLE ENTRIES

Inlets:
- [x] Top, Left side
- [ ] Top, Right side
- [ ] Bottom, Left side
- [x] Bottom, Right side
- [ ] Back side

Outlets:
- [ ] Top, Left side
- [x] Top, Right side
- [x] Bottom, Left side
- [ ] Bottom, Right side

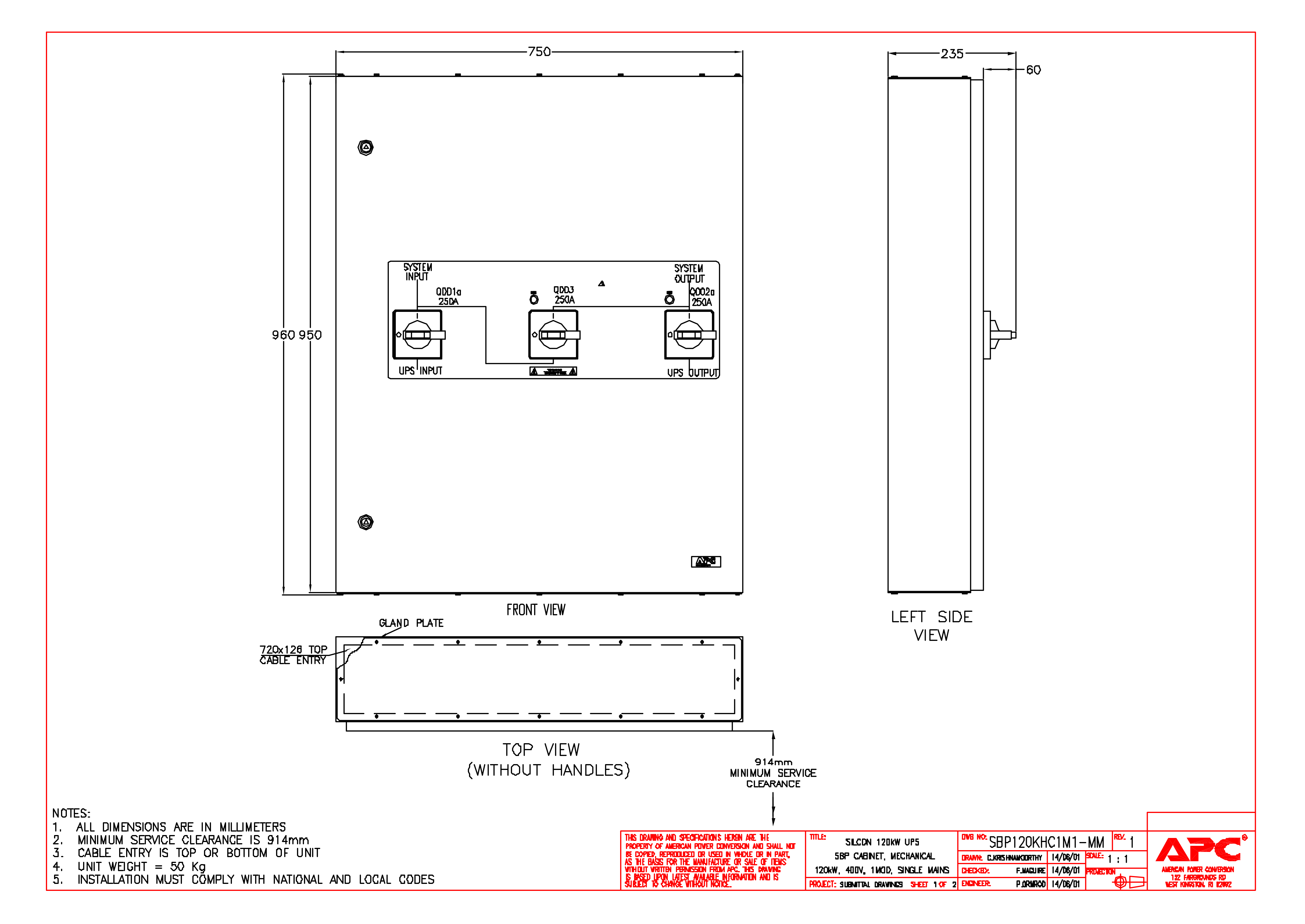
9. CONNECTIONS

Power Circuits :

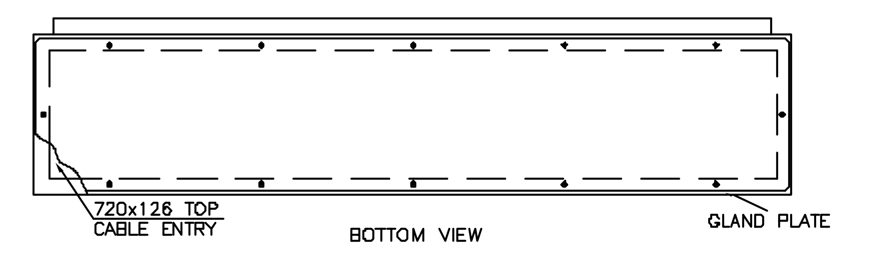
Input	Output	
[x]	[x]	Component terminals
[ ]	[ ]	Cable plug

Control Circuits :
- [x] Terminals

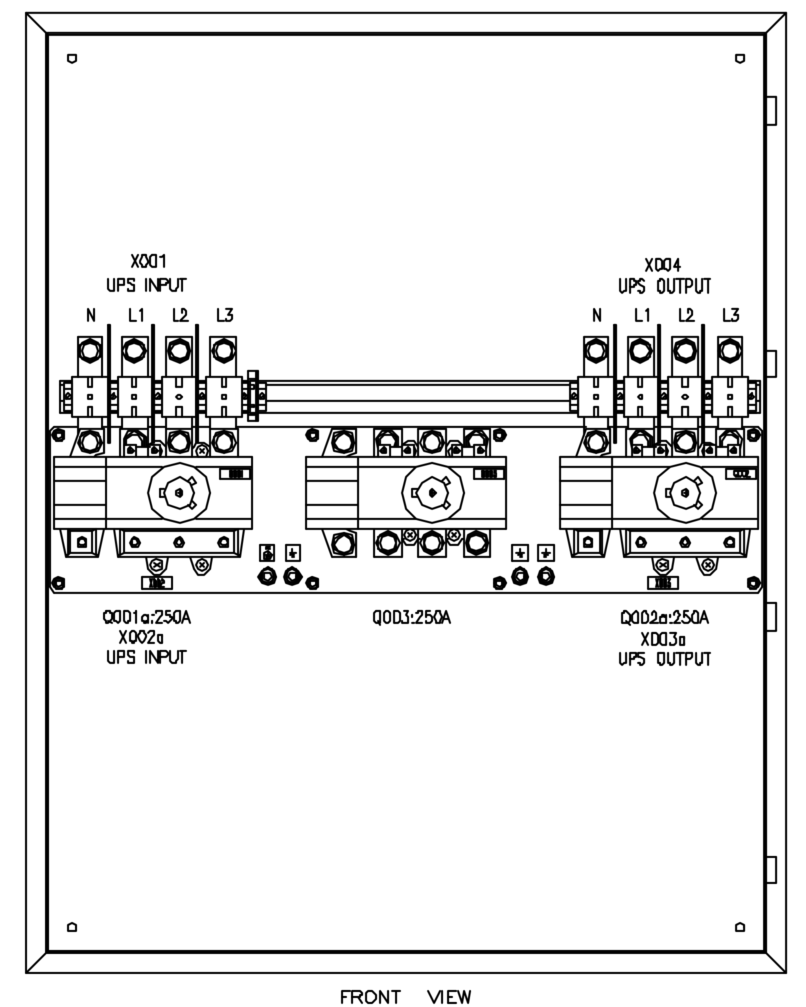
TITLE: SILCON 120kW UPS SERVICE BYPASS PANEL SPECIFICATION 120kW, 400V, 1MOD	DWG NO: SBP120KHC1M1-SP	REV. -	APC AMERICAN POWER CONVERSION 132 FAIRGROUNDS RD WEST KINGSTON, RI 02892
	DRAWN BY: C.KRISHNAMOORTHY 06/09/01	SCALE: NTS	
	CHECKED BY: M.SALDKHE 05/09/01	PROJECTION:	
PROJECT: SUBMITTAL DRAWINGS, SHEET 1 OF 1	ENGINEER: P.SRMRDD/S.WACH 05/09/01		



750
960 950
SYSTEM INPUT
QDD1a 250A
QDD3 250A
SYSTEM OUTPUT
QDD2a 250A
UPS INPUT
UPS OUTPUT
FRONT VIEW
235
60
LEFT SIDE VIEW
GLAND PLATE
720x126 TOP CABLE ENTRY
TOP VIEW (WITHOUT HANDLES)
914mm MINIMUM SERVICE CLEARANCE
NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS
2. MINIMUM SERVICE CLEARANCE IS 914mm
3. CABLE ENTRY IS TOP OR BOTTOM OF UNIT
4. UNIT WEIGHT = 50 Kg
5. INSTALLATION MUST COMPLY WITH NATIONAL AND LOCAL CODES
THIS DRAWING AND SPECIFICATIONS HEREIN ARE THE PROPERTY OF AMERICAN POWER CONVERSION AND SHALL NOT BE COPIED, REPRODUCED OR USED IN WHOLE OR IN PART, AS THE BASIS FOR THE MANUFACTURE OR SALE OF ITEMS WITHOUT WRITTEN PERMISSION FROM APC. THIS DRAWING IS BASED UPON LATEST AVAILABLE INFORMATION AND IS SUBJECT TO CHANGE WITHOUT NOTICE.
TITLE: SILCON 120kW UPS
SBP CABINET, MECHANICAL
120kW, 400V, 1MOD, SINGLE MAINS
PROJECT: SUBMITTAL DRAWINGS SHEET 1 OF 2
DWG NO: SBP120KHC1M1-MM
REV. 1
DRAWN: C.KRISHNAMOORTHY 14/06/01
CHECKED: F.MAGUIRE 14/06/01
ENGINEER: P.ORMROD 14/06/01
SCALE: 1 : 1
PROJECTION
APC
AMERICAN POWER CONVERSION
132 FAIRGROUNDS RD
WEST KINGSTON, RI 02892



BOTTOM VIEW



FRONT VIEW
(FRONT COVERS REMOVED)

LEFT SIDE VIEW

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS
2. MINIMUM SERVICE CLEARANCE IS 914mm
3. CABLE ENTRY IS TOP OR BOTTOM OF UNIT
4. UNIT WEIGHT = 50 Kg
5. INSTALLATION MUST COMPLY WITH NATIONAL AND LOCAL CODES

TITLE: SILCON 120kW UPS SBP CABINET, MECHANICAL 120kW, 400V, 1MOD, SINGLE MAINS	DWG NO: SBP120KHC1M1-MM		REV. 1
	DRAWN: C.KRISHNAMOORTHY	02/11/01	SCALE: 1 : 1
	CHECKED: F.MAGUIRE	02/11/01	PROJECTION
PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 2	ENGINEER: P.ORMROD	02/11/01	



AMERICAN POWER CONVERSION
132 FAIRGROUNDS RD
WEST KINGSTON, RI 02892

750

950

615

525

426

386

X001
UPS INPUT

N L1 L2 L3

N L1 L2 L3

X004
UPS OUTPUT

N L1 L2 L3

Q001a:250A
X002a
UPS INPUT

Q003:250A

DETAIL–A

Q002a:250A
X003a
UPS OUTPUT

FRONT VIEW
(FRONT COVERS REMOVED)

FIXING HOLES
4xØ8.5mm

44 44 44

N L1 L2 L3

DETAIL–A

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS
2. ALL CABINETS ARE SHOWN WITHOUT DOORS AND MOUNTING BRACKET
3. CABLE ENTRY IS TOP OR BOTTOM OF UNIT
4. INSTALLATION MUST COMPLY WITH NATIONAL AND LOCAL CODES

TITLE: SILCON 120kW UPS SBP CABINET, ELECTRICAL 120kW, 400V, 1MOD, SINGLE MAINS	DWG NO: SBP120KHC1M1–ME			REV. –	
	DRAWN: C.KRISHNAMOORTHY	02/11/01	SCALE: 1:1		
	CHECKED: F.MAGUIRE	02/11/01	PROJECTION		
PROJECT: SUBMITTAL DRAWINGS SHEET 1 OF 1	ENGINEER: P.ORMROD	02/11/01			



AMERICAN POWER CONVERSION
132 FAIRGROUNDS RD
WEST KINGSTON, RI 02892

POWER CIRCUIT

1 L1,L2,L3,N,PE — MAINS; PE CONDUCTOR MAX. 219A

2 Q001a 250A 3P — L1,L2,L3,N,PE — TO UPS A; PE CONDUCTOR MAX. 219A

3 F010 4A — L1,N — POWER SUPPLY FOR SIGNALS AND ALARMS

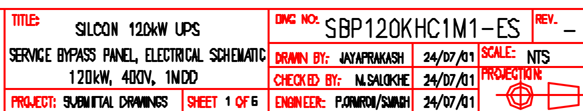
4 Q003 250A 4P — EXTERNAL MANUAL SERVICE BY-PASS

5 Q002a 250A 4P — L1,L2,L3,N — FROM UPS A MAX. 173.2A

6 L1,L2,L3,N,PE — LOAD; PE CONDUCTOR OUTPUT MAX. 173.2A

NOTES:

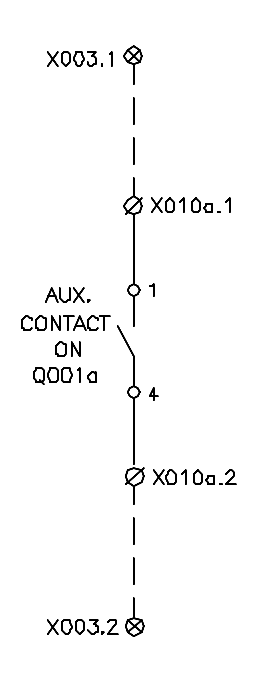
1. DASH-DOT (_._._._) LINES INSIDE OF SBP UNIT, REPRESENT PE-CONDUCTOR CONNECTION.
2. DASHED (– – –) LINES OUTSIDE OF SBP UNIT, REPRESENT CABLING PROVIDED BY OTHERS.





CONTROL CIRCUIT

L1





Q001a UPS INPUT
SWITCH (NO POS.)

NOTES:

1. X003 ⊗ TERMINALS LOCATED IN UPS.
2. X010 ∅ TERMINALS LOCATED IN SBP.
3. DASHED (— — —) LINES OUTSIDE OF SBP UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

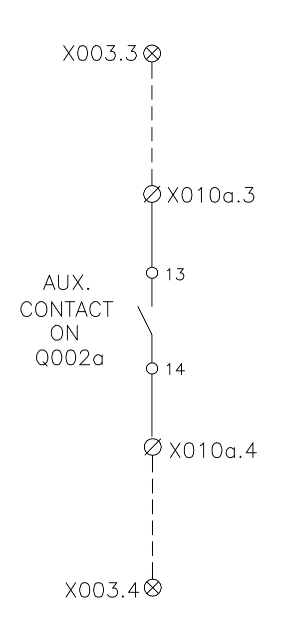
TITLE: SILCON 120kW UPS SERVICE BYPASS PANEL, ELECTRICAL SCHEMATIC 120kW, 400V, 1MOD	DWG NO: SBP120KHC1M1-ES			REV. —
	DRAWN: JAYAPRAKASH	24/07/01	SCALE: NTS	
	CHECKED: M.SALOKHE	24/07/01	PROJECTION	
PROJECT: SUBMITTAL DRAWINGS SHEET 2 OF 6	ENGINEER: P.ORNROI/S.WAGH	24/07/01		



AMERICAN POWER CONVERSION
132 FAIRGROUNDS RD
WEST KINGSTON, RI 02892

CONTROL CIRCUIT

L1



N

11 12 13 14 15 16 17 18 19 20

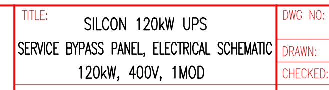
Q002a UPS OUTPUT
SWITCH (NO POS.)

NOTES:

1. X003 ⊗ TERMINALS LOCATED IN UPS.
2. X010 ∅ TERMINALS LOCATED IN SBP.
3. DASHED (– – –) LINES OUTSIDE OF SBP UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

TITLE: SILCON 120kW UPS
SERVICE BYPASS PANEL, ELECTRICAL SCHEMATIC
120kW, 400V, 1MOD

PROJECT: SUBMITTAL DRAWINGS SHEET 3 OF 6



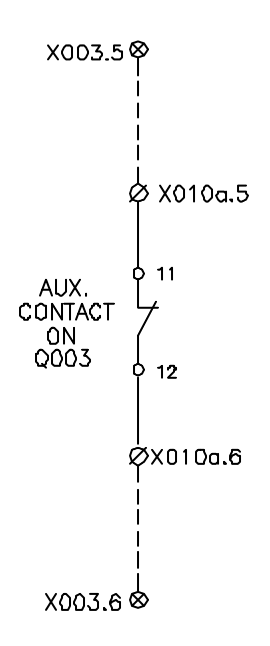
DWG NO: SBP120KHC1M1-ES		REV. –
DRAWN: JAYAPRAKASH	24/07/01	SCALE: NTS
CHECKED: M.SALOKHE	24/07/01	PROJECTION
ENGINEER: P.ORMROD/S.WAGH	24/07/01	



AMERICAN POWER CONVERSION
132 FAIRGROUNDS RD
WEST KINGSTON, RI 02892

CONTROL CIRCUIT

L1



N

21 22 23 24 25 26 27 28 29 30

Q003 SERVICE BY-PASS
SWITCH (NC POS.)
UPS A

NOTES:

1. X003 ⊗ TERMINALS LOCATED IN UPS.
2. X010 ⌀ TERMINALS LOCATED IN SBP.
3. DASHED (— — —) LINES OUTSIDE OF SBP UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

TITLE: SILCON 120kW UPS SERVICE BYPASS PANEL, ELECTRICAL SCHEMATIC 120KW, 400V, INDO	DWG NO: SBP120KHC1M1-ES		REV. —
	DRAWN: JAYAPRAKASH	24/07/01	SCALE: NTS
	CHECKED: M.SALOKHE	24/07/01	PROJECTION
PROJECT: SUBMITTAL DRAWINGS SHEET 4 OF 6	ENGINEER: P.ORWROU/S.WAGH	24/07/01	



AMERICAN POWER CONVERSION
132 FAIRGROUNDS RD
WEST KINGSTON, RI 02892

CONTROL CIRCUIT

F010
4A
L1

X010a.7
X005.1
UPS A
X005.2
X010a.8
H002a
GREEN

X010a.9
X005.3
UPS A
X005.4
X010a.10
H003
GREEN

N

31 32 33 34 35 36 37 38 39 40

OK FOR OPERATING THE Q002a

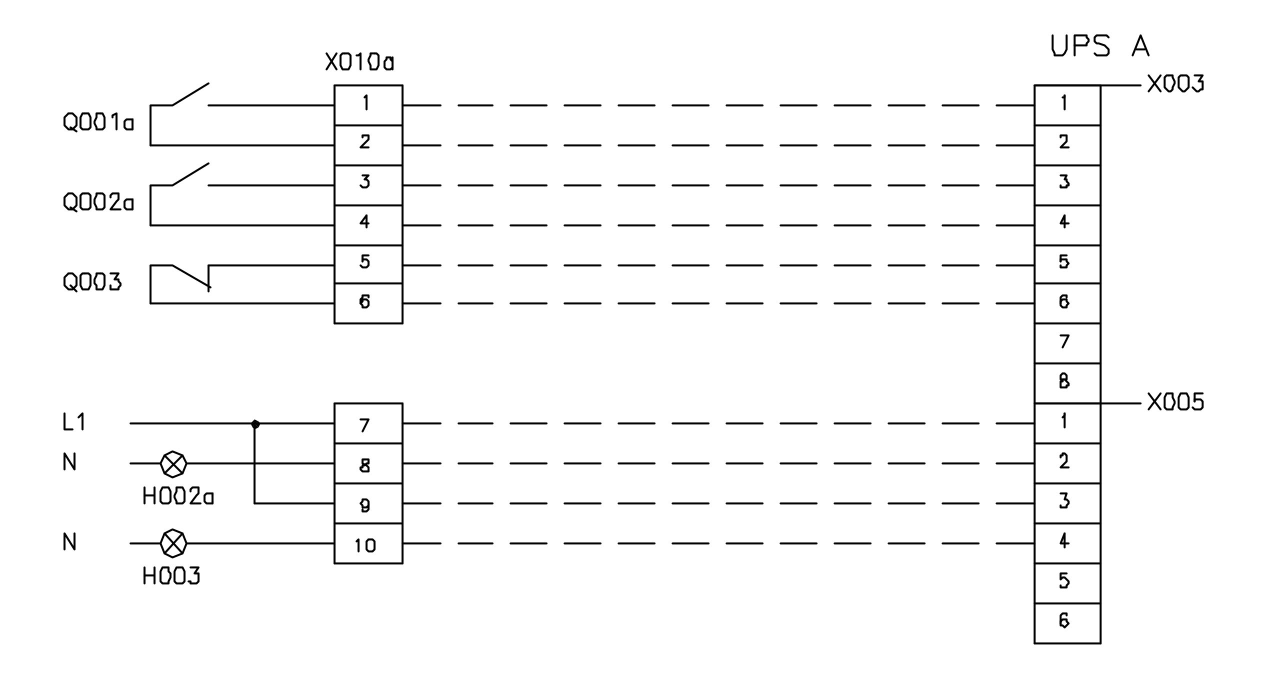
OK FOR OPERATING THE Q003

NOTES:

1. DASHED (– – –) LINES OUTSIDE OF SBP UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

TITLE: SILCON 120kW UPS SERVICE BYPASS PANEL, ELECTRICAL SCHEMATIC 120kW, 400V, 1MOD	DWG NO: SBP120KHC1M1-ES		REV. –
	DRAWN: JAYAPRAKASH	24/07/01	SCALE: NTS
	CHECKED: M.SALOKHE	24/07/01	PROJECTION
PROJECT: SUBMITTAL DRAWINGS SHEET 5 OF 6	ENGINEER: P.ORWROI/S.WASH	24/07/01	





NOTES:

1. DASHED (_ _ _) LINES OUTSIDE OF SBP UNIT, REPRESENT CABLING PROVIDED BY OTHERS.

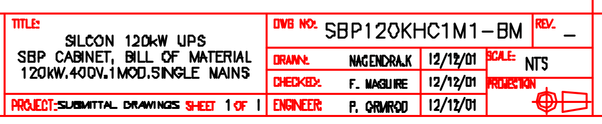
TITLE: SILCON 120kW UPS SERVICE BYPASS PANEL, ELECTRICAL SCHEMATIC 120kW, 400V, 1MOD		DWG NO: SBP120KHC1M1-ES	REV. -
		DRAWN BY: JAYAPRAKASH 24/07/01	SCALE: NTS
		CHECKED BY: N.SALOKHE 24/07/01	PROJECTION:
PROJECT: SUBMITTAL DRAWINGS	SHEET 6 OF 6	ENGINEER: P.ORMROD/S.WASH 24/07/01	

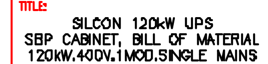


AMERICAN POWER CONVERSION
132 FAIRGROUNDS RD
WEST KINGSTON, RI 02892

Sl. No.	Part No.	Description	U. O. M	Qty.
01	0G-SBP3120E	GENERIC SUB-ASSY. SBP-3120E	NO.	01
02	560-0031	SWITCH ASY 250A 4P 1NO AUX	NO.	01
03	560-0032	SW ASY 250A 1NO 1NC AUX M/F	NO.	01
04	560-0029	SWITCH ASY 250A 4P 1NO 1NO AUX	NO.	01
05	570-0001	INDICATR NEON GRN 230V PNL MNT	NO.	02
06	511-0004	FUSE FAST 4A 250VAC 5X20MM	NO.	01
07	740-0016	TERM BLK 2P FUSE DIN MNT BARR	NO.	01
08	820-0004	CABLE TIE ADHESIVE	NO.	10
09	804-0010	SCREW 4-40X3/4" PAN EXT SEM	NO.	02
10	804-0600	SCREW 6X1/4 FLANGE HEAD FORM F	NO.	24
11	871-4017	CARTON SBP3120E/175A-SS	NO.	01
12	871-4018	FOAM INSERT SBP3120E/175-SS	NO.	01
13	990-4004	INSTALL SHEET SBP-300E	NO.	01
14	811-1204	WASHER SPRING M12	NO.	16
15	811-1202	WASHER M12	NO.	16
16	803-4830	BOLT HEX M8X30MM	NO.	04
17	803-2008	NUT M8	NO.	08
18	811-0602	WASHER FLT M6X3MM THK DIN7349	NO.	12
19	811-0803	WASHER LOCK M8 SPLIT	NO.	04
20	811-0805	WASHER M8 EXT SERRATED LOCK ZP	NO.	04
21	803-2006	NUT M6 HEX STEEL	NO.	18
22	803-0016	WASHER M6 FLAT	NO.	18
23	803-0514	SCREW M5X10MM PH POZI 0059250	NO.	12
24	811-0505	WASHER M5 SERRATED LOCK	NO.	12
25	811-0601	WASHER SPLIT M6 DIN7980	NO.	12
26	811-0604	WASHER M6 EXT SERRATED 1K ZP	NO.	06
27	803-1200	NUT M12 HEX STEEL DIN 934 59553	NO.	08
28	811-1207	WASHER LOCK M12 EXT TOOTH	NO.	16
29	0W01496	WIRE# 10 G/Y 585MM	NO.	01
30	0W01497	WIRE# 10 G/Y 440MM M6RNG/M6RNG	NO.	01
31	0W01498	WIRE#10 G/Y 410MM M8RNG/M6RNG	NO.	01
32	0W01493	WIRE#3/0BLK 460MM(M12-M12)90	NO.	04
33	0W01494	WIRE#3/0BLK 360MM (M12-M12)90	NO.	04
34	0W5202	WIRING SIGNAL LOOM SBP3120E	NO.	01
35	0M-1056	ENCLOSURE SBP-3120E	NO.	01
36	872-0030	BAG ZIP-LOCKX12 4 MIL	NO.	01
37	885-4318	LABEL SBP FRONT 610X215 3PHASE	NO.	01
38	885-70158	LABEL MODEL/SERIAL#	NO.	01
39	870-8490	RAIL MNTG TYPE G TO DIN46277/1	NO.	01
40	740-0049	TERM BLCK 2P LNK 120MM W.SCRWS	NO.	08
41	740-0052	BARRIER FOR 750-0049	NO.	06
42	740-0050	TRM BLK END BRCKT G-RAIL	NO.	13
43	803-1226	BOLT M12X25 STEEL HEX HEAD	NO.	08

Sl. No.	Part No.	Description	U. O. M	Qty.
44	850-0502B	STRIP FOAM RUBBER 10X3MM	m	0.168
45	885-4314A	LABEL SBP-300E STANDARD SET	NO.	01
46	885-0098-A	LABEL BOX GENERIC W/APC LOGO	NO.	01
47	885-0610	BOX LABEL 4.4X8.5	NO.	01
48	885-4479	LABEL SBP120KHC1M1	NO.	01





TITLE: SILCON 120kW UPS SBP CABINET, BILL OF MATERIAL 120kW.400V.1MOD.SINGLE MAINS	DWG NO: SBP120KHC1M1-BM		REV. –
	DRAWN: NAGENDRA.K	12/12/01	SCALE: NTS
	CHECKED: F. MAGUIRE	12/12/01	PROJECTION
PROJECT: SUBMITTAL DRAWINGS SHEET 1 OF 1	ENGINEER: P. GRMROD	12/12/01	

